Amendments to the specification

Please replace the first paragraph after the title on page 1 with the following amended paragraph:

The present invention relates to a method and flow meter for determining the composition and flow rates of individual components of a multiphase fluid, as defend in the preambles of certain claims ~~1 and 12, respectively~~.

Please replace the paragraph beginning on line 20 of page 6 with the following amended paragraph:

The flow meter according to the invention is further characterized by the features as defined in the independent apparatus claim ~~12~~.

Please add the following new paragraph after line 26 on page 6:

Brief Description of the Drawings

Please replace the paragraph beginning on line 28 on page 6 with the following amended paragraph:

Figures 1a-1d show ~~Fig. 1 shows a~~ graphical ~~representation~~ representations of four examples of annular flow through a cross section of a 4" pipe,

Please replace the paragraph beginning on line 41 on page 6 with the following amended paragraph:

~~Fig. 6 shows~~ Figures 6a and 6b show the electromagnetic field below the cut-off frequency TE_{11} or at high loss inside a flow meter according to figure 2,

Please replace the paragraph beginning on line 44 on p page 6 with the following amended paragraph:

~~Fig. 7 shows~~ Figures 7a and 7b show the electric field for the waveguide modes TE_{11} and TM_{01} in the cross section of a flow meter according to figure 2,

Please replace the paragraph beginning on line 23 of page 6 with the following amended paragraph:

Dependent claims ~~2-11 and 13-21~~ define preferred embodiments of the invention.

Please replace the paragraph bridging pages 8-9 with the following amended paragraph:

Loss and phase measurements are performed by measuring the received power and phase difference of a broad band signal (typical 10 Mhz-4,0 Ghz) which is transmitted from a sending antenna and received at two receiving antennas located at a different length from the sending antenna. The measurement is done at at least two and preferable three planes in the pipe where one plane is at the cross section, a second is at the longitudinal direction and a third at an angle (such as 45 degrees) to the flow direction. The frequency is typically varied ~~form~~ from 10 Mhz until 4,0 Ghz depending on the pipe diameter. By recording the frequency at at least three predetermined phase differences and using a calibration constant for the system, the permittivity within the pipe can be measured in all directions. Based on the measurements of the permittivity in the various directions, the degree of annular flow can be measured and compensated for by using a mathematical model such as neural networks since the various measurements are differently affected by concentration of gas in the middle of the pipe.

Please replace the paragraph bridging pages 12 and 13 with the following amended paragraph:

A combination of a gamma ray absorption (pt 1) and venturi (pt 2) measurements, e.g. as shown in figure 16 and 17, may also be used. This combination can in some cases extend the operation envelope of the measurement system and enhance the measurement accuracy. In figure 16 and 17 the gamma densitometer is placed inside the venturi throat together with the antennas such that the measurements can be performed under the same conditions. However, the gamma densitometer 33 and 34 may also be placed at either end of the sensor, but then it requires a compensation model to correct for the difference between the venturi throat 10 and pipe 11. This correction model can be derived based on empirical data. When the antennas are placed inside a venturi throat, the antennas 16, 17 and 18 has to be approximately 0.5 ~~throat~~ to 10 diameters from the start of the venturi throat; otherwise, the measurement of the cut-off frequency will be influenced by the diameter of the large pipe 11. Alternatively, in order to make the sensor more compact, the cross sectional measurement in such an arrangement can be placed more in the middle of the venturi throat, as shown in figure 17. Two additional antennas are